

Claims

1. A respiratory mask arrangement having a sealing lip device for resting on the facial
5 surface of a mask user, a covering device which in cooperation with the sealing lip device defines a mask interior, a respiratory gas evacuation device for delivering respiratory gas to the mask interior defined by the covering device, this mask interior communicating with the nostril and/or the oral opening of the mask user, wherein the covering device is embodied at least in some portions as a permeable structure.
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2. The respiratory mask arrangement in accordance with claim 1, characterized in that the covering device is made from an air-permeable woven material, in particular Gore-Tex material.
- 15 3. The respiratory mask arrangement in accordance with claim 1, characterized in that the covering device is made from a porous material.
4. The respiratory mask arrangement in accordance with at least one of claims 1-3, characterized in that the covering device is made from a flexible material which is
20 deployed in the mask interior under the influence of pressure.
5. The respiratory mask arrangement in accordance with at least one of claims 1-4, characterized in that the air permeability of the air-permeable material and the area of the portion defined thereby are selected such that a sufficient outflow of gas from the
25 mask interior is assured.
6. The respiratory mask arrangement in accordance with at least one of claims 1-5, characterized in that the covering device is coupled with a headband arrangement.

7. The respiratory mask arrangement in accordance with at least one of claims 1-6, characterized in that the headband arrangement is likewise used to furnish a gas outflow area.

5 8. The respiratory mask arrangement in accordance with at least one of claims 1-7, characterized in that the sealing lip device is glued or vulcanized or sprayed onto the covering device.

10 9. The respiratory mask arrangement in accordance with at least one of claims 1-7, characterized in that the covering device is detachably coupled with the sealing lip device.

15 10. The respiratory mask arrangement in accordance with at least one of claims 1-9, characterized in that the sealing lip device is embodied integrally with the covering device.

20 11. The respiratory mask arrangement in accordance with at least one of claims 1-10, characterized in that supporting wall structures are provided, for deploying the covering device.

12. The respiratory mask arrangement in accordance with at least one of claims 1-11, characterized in that the supporting wall structures form part of a skeletal structure.

25 13. The respiratory mask arrangement in accordance with at least one of claims 1-12, characterized in that the covering device has a hard shell body and a woven outlet portion coupled to the hard shell body.

30 14. The respiratory mask arrangement in accordance with claim 13, characterized in that the woven outlet portion has an area of at least 3.7 cm².

15. A headband arrangement for a respiratory mask, wherein the headband arrangement
in at least some portions is made of an air-permeable material and includes a conduit
unit which is in communication with a mask interior defined by the respiratory mask,
in such a manner that an outflow from the mask interior of respiratory gas that is under
5 pressure can be effected through the air-permeable material portion provided in the
headband.

16. A respiratory mask arrangement having an arched member, a sealing lip device for
resting on the facial surface of a mask user, and a respiratory gas line unit for
10 delivering respiratory gas to a mask interior that is defined by the arched member and
is in communication with the nostril and/or the oral opening of the mask user, wherein
in cooperation with the arched member, an air guide path is defined that extends from
a respiratory gas inlet area to a respiratory gas outlet area and extends at least in some
portions along a wall delimiting the arched member.

15 17. The respiratory mask arrangement in accordance with claim 16, characterized in that
the air guide path is delimited by an insert element.

18. The respiratory mask arrangement in accordance with claim 17, characterized in that
20 the arched member is provided with a fixation device, for installing the insert element.

19. The respiratory mask arrangement in accordance with at least one of claims 16-18,
characterized in that the insert element can be installed in the inner region of the
arched member.

25 20. The respiratory mask arrangement in accordance with at least one of claims 16-19,
characterized in that a receiving portion, for receiving the insert element, is embodied
in the inner region of the arched member.

21. The respiratory mask arrangement in accordance with at least one of claims 16-20,
characterized in that conduit structures are embodied in the insert element.
22. The respiratory mask arrangement in accordance with at least one of claims 16-21,
5 characterized in that the conduit structures are adapted such that a defined flow
resistance is obtained.
23. The respiratory mask arrangement in accordance with at least one of claims 16-22,
characterized in that the conduit portions are covered by the walls of the arched
10 member.
24. The respiratory mask arrangement in accordance with at least one of claims 16-23,
characterized in that the arched member is made from an elastomer material.
- 15 25. The respiratory mask arrangement in accordance with at least one of claims 16-24,
characterized in that the arched member is embodied integrally with the sealing lip
device.
26. The respiratory mask arrangement in accordance with at least one of claims 16-25,
20 characterized in that the arched member is provided with openings for evacuating
CO₂-laden respiratory gas.
27. The respiratory mask arrangement in accordance with at least one of claims 16-26,
characterized in that the insert element is made from an elastomer material.
- 25 28. The respiratory mask arrangement in accordance with at least one of claims 16-27,
characterized in that labyrinth structures are embodied in the insert element.

29. The respiratory mask arrangement in accordance with at least one of claims 16-28, characterized in that the insert element is coupled to the arched member by clamping action.
- 5 30. An insert element for a respiratory mask arrangement in accordance with at least one of claims 16-29.